EXPERIMENT - 1

Object Oriented Programming Lab

Aim

Write a program to find whether a number is prime or not.

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Aim:

Write a program to find whether a number is prime or not.

Source Code:

```
#include <iostream>
#include <math.h>
using namespace std;

bool isPrime(int n){
    if (n < 2) return false;
    for (int i = 2; i < n; ++i) {
        if ((n % i) == 0) return false;
    }
    return true;
}

bool isPrime1(int n){
    if (n < 2) return false;
    if (n % 2 == 0) return false;
    for (int i = 2; i < sqrt(n); ++i) {
        if ((n % i) == 0) return false;
    }
    return true;
}

int main() {
    cout << "Enter the number you wan to check whether prime or not";
    int n;
    cin >> n;
    cout << "result = " << isPrime(n);
    cout << "result = " << isPrime1(n);
    return 0;
}
```

Output:

```
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ isPrime.cpp -o isPrime } ; if ($?) { .\isPrime }
Enter the number you wan to check whether prime or not 23
result = 1
result = 1
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ isPrime.cpp -o isPrime } ; if ($?) { .\isPrime }
Enter the number you wan to check whether prime or not 18
result = 0
result = 0
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ isPrime.cpp -o isPrime } ; if ($?) { .\isPrime }
Enter the number you wan to check whether prime or not 101
result = 1
result = 1
PS D:\sem 4\cpp\oops>
```